

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1.-20. (Canceled)

21. (Currently Amended) ~~Additive stabilized, 100% water redispersible~~ A composition of matter comprising predominately metal oxide colloids having particle sizes ranging from 0.5 - 5 nm, said metal oxide colloids comprising at least one metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said metal oxide colloids, wherein said metal oxide colloids are redispersible in a solution consisting of water.

22. (Currently Amended) ~~Colloids~~ Composition according to claim 21, ~~which~~ wherein the metal oxide colloids are monometal-oxide colloids having particle sizes ranging from 0.5 - 5 nm, comprising a metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said metal oxide colloids.

23. (Currently Amended) ~~Colloids~~ Composition according to claim 21, ~~which~~ wherein the metal oxide colloids are bimetal-oxide colloids or multimetal-oxide colloids having particle sizes ranging from 0.5 - 5 nm, comprising a plurality of metals of groups

VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said metal oxide colloids.

24. (Currently Amended) ~~Colloids~~ Composition according to claim 21, ~~which~~ wherein the metal oxide colloids are bimetal-oxide colloids or multimetal-oxide colloids having particle sizes ranging from 0.5 - 5 nm, comprising a metal of a main group of the Periodic Table and one or more metals of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said metal oxide colloids.

25. (Currently Amended) ~~Colloids~~ Composition according to claim 24, wherein said metal of a main group of the Periodic Table is tin.

26. (Currently Amended) ~~Colloids~~ Composition according to claim 21, wherein said at least one water-soluble additive capable of stabilizing said metal oxide colloids is selected from the group consisting of amphiphilic betaines, cationic surfactants, anionic surfactants, nonionic surfactants, and water-soluble polymers.

27. (Currently Amended) A process for preparing a composition of matter comprising predominately metal oxide colloids, ~~said colloids being additive stabilized,~~ ~~100% water redispersible metal oxide~~ colloids having particle sizes ranging from 0.5-5 nm, said metal oxide colloids comprising at least one metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable

of stabilizing said metal oxide colloids, wherein said metal oxide colloids are redispersible in a solution consisting of water, said process comprising hydrolyzing and condensing at least one salt of said at least one metal in an aqueous solution comprising a base in the presence of said at least one water-soluble additive capable of stabilizing said metal oxide colloids.

28. (Currently Amended) The process according to claim 27, which is for the preparation of a composition comprising predominately monometal-oxide colloids, and comprises hydrolyzing and condensing a salt of a metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table in an aqueous solution comprising a base in the presence of a water-soluble additive capable of stabilizing said metal oxide colloids.

29. (Currently Amended) The process according to claim 27, which is for the preparation of a composition comprising predominately bimetal-oxide colloids or multimetal-oxide colloids, and comprises hydrolyzing and condensing salts of a plurality of metals of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table in an aqueous solution comprising a base in the presence of a water-soluble additive capable of stabilizing said metal oxide colloids.

30. (Currently Amended) The process according to claim 27, which is for the preparation of a composition comprising predominately bimetal-oxide colloids, and comprises hydrolyzing and condensing a salt of a metal of a main group of the Periodic Table and a salt of a metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table in an

aqueous solution comprising a base in the presence of a water-soluble additive capable of stabilizing said metal oxide colloids.

31. (Previously Presented) The process according to claim 30, wherein said salt of said metal of a main group of the Periodic Table is  $\text{SnCl}_2$  or  $\text{SnCl}_4$ .

32. (Currently Amended) The process according to claim 27, wherein the water-soluble additive capable of stabilizing said metal oxide colloids is selected from the group consisting of amphiphilic betaines, cationic surfactants, anionic surfactants, nonionic surfactants, and water-soluble polymers.

33. (Previously Presented) The process according to claim 27, wherein the base is an alkali metal carbonate, an alkaline earth metal carbonate, an alkali metal bicarbonate, an alkaline earth metal bicarbonate, an alkali metal hydroxide, an alkaline earth metal hydroxide, an alkali metal phosphate, an alkaline earth metal phosphate, an alkali metal hydrogen phosphate or an alkaline earth metal hydrogen phosphate.

34. (Previously Presented) The process according to claim 33, wherein the base is  $\text{Li}_2\text{CO}_3$ ,  $\text{Na}_2\text{CO}_3$ ,  $\text{K}_2\text{CO}_3$ ,  $\text{Cs}_2\text{CO}_3$  or  $\text{MgCO}_3$ .

35. (Previously Presented) The process according to claim 27, which is conducted at a temperature between 20 and 100°C.

36. (Previously Presented) The process according to claim 35, which is conducted at a temperature between 50 and 90°C.

37. (Currently Amended) The process according to claim 27, which is for the preparation of a composition comprising predominately bimetal-oxide colloids or multi-metal-oxide colloids, and further comprises choosing the mass ratio of metal salts to control the mass ratio of metals in the bimetal-oxide colloids or multimetal-oxide colloids.

38. (Currently Amended) A process for preparing ~~water redispersible, nanostructured,~~ monometal colloids, bimetal colloids or multimetal colloids each having particle sizes ranging from 0.5 - 5 nm, said process comprising:

- a) preparing a composition comprising predominately monometal-oxide colloids, bimetal-oxide colloids or multimetal-oxide colloids by a process comprising hydrolyzing and condensing at least one metal salt in an aqueous solution comprising a base in the presence of a water-soluble additive capable of stabilizing said monometal-oxide colloids, bimetal-oxide colloids or multimetal-oxide colloids, wherein said monometal-oxide colloids, bimetal-oxide colloids and multimetal-oxide colloids are redispersible in a solution consisting of water; and

- b) reducing said monometal-oxide colloids, bimetal-oxide colloids or multimetal-oxide colloids.

39. (Previously Presented) The process according to claim 38, which is conducted in the presence of a reduction agent selected from the group consisting of hydrogen, hypophosphite and formate.

40. (Currently Amended) A process for fixing colloids ~~according to claim 21~~ onto solid supports, said process comprising treating solid oxidic or non-oxidic solid materials with an aqueous solution of the colloids, wherein the colloids are metal oxide colloids having particle sizes ranging from 0.5 - 5 nm, said metal oxide colloids comprising at least one metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said metal oxide colloids, wherein said metal oxide colloids are redispersible in a solution consisting of water.

41. (Previously Presented) A process for fixing colloids onto solid supports, said process comprising preparing colloids by the process according to claim 38, and treating solid oxidic or non-oxidic solid materials with an aqueous solution of the colloids.

42. (Currently Amended) A process for immobilizing colloids ~~according to claim 21~~, said process comprising incorporating said colloids into sol-gel-materials,

wherein said colloids are metal oxide colloids having particle sizes ranging from 0.5 - 5 nm, said metal oxide colloids comprising at least one metal of groups VIb, VIIb, VIII, Ib or IIb of the Periodic Table, and stabilized by at least one water-soluble additive capable of stabilizing said metal oxide colloids, wherein said metal oxide colloids are redispersible in a solution consisting of water.

43. (Previously Presented) The process according to claim 42, wherein the sol-gel materials are prepared from gel precursors, which gel precursors are  $\text{Si}(\text{OCH}_3)_4$  or mixtures of  $\text{Si}(\text{OCH}_3)_4$  and  $\text{C}_n\text{H}_{2n+1}\text{Si}(\text{OCH}_3)_3$  ( $n = 1$  to  $4$ ).

44. (Previously Presented) A process for immobilizing colloids, said process comprising preparing colloids by the process according to claim 38, and incorporating said colloids into sol-gel materials.

45. (Previously Presented) The process according to claim 44, wherein the sol-gel materials are prepared from gel precursors, which gel precursors are  $\text{Si}(\text{OCH}_3)_4$  or mixtures of  $\text{Si}(\text{OCH}_3)_4$  and  $\text{C}_n\text{H}_{2n+1}\text{Si}(\text{OCH}_3)_3$  ( $n = 1$  to  $4$ ).

46. (New) The composition according to claim 21, wherein said metal oxide colloids are redispersible in a solution consisting of water to an extend of up to 0.5 mole of metal per liter of water.

47. (New) The process according to claim 27, wherein said metal oxide colloids are redispersible in a solution consisting of water to an extend of up to 0.5 mole of metal per liter of water.

48. (New) The process according to claim 38, wherein said monometal-oxide colloids, bimetal-oxide colloids or multimetal-oxide colloids are redispersible in a solution consisting of water to an extend of up to 0.5 mole of metal per liter of water.

49. (New) The process according to claim 40, wherein said metal oxide colloids are redispersible in a solution consisting of water to an extend of up to 0.5 mole of metal per liter of water.

50. (New) The process according to claim 42, wherein said metal oxide colloids are redispersible in a solution consisting of water to an extend of up to 0.5 mole of metal per liter of water.

51. (New) The process according to claim 27, which further comprises isolating metal oxide colloid powder and subsequently redispersing the metal oxide colloid powder in a solution consisting of water.

52. (New) The process according to claim 38, which further comprises isolating monometal-oxide colloid powder, bimetal-oxide colloid powder or multimetal-oxide colloid powder and subsequently redispersing the monometal-oxide colloid



powder, bimetal-oxide colloid powder or multimetal-oxide colloid powder in a solution consisting of water.